

IN RESPONSE TO THE OFFICE ACTION

Objection to the Drawings

The Examiner has rejected the drawings under 37 C.F.R. 183(a), arguing that the drawings must show every feature of the claims. However, as required by statute, 35 U.S.C. 113, drawings are only required where necessary for the understanding of the subject matter to be patented. In this case, no drawings are required, as anyone of ordinary skill in the art would understand the invention. Furthermore, those of ordinary skill in the art would know how to run tests to determine metal removal from a finished metal part. The drawings in the instant application are provided to show the test method (one of many) used by the applicants that is well known in the art. The examples in the instant application use metal test elements, and that test method is shown in the drawings – in other words, the drawings have not been presented to further the understanding of the claims. One of skill in the art would not need a drawing to understand, the instant invention, and the drawings supplied herein are provided to clarify the test method used in the specification only.

Therefore, Applicants respectfully request that the Examiner withdraw the objection to the drawings.

Objections to the Specification

The Examiner objected to the specification, in particular that the references to Figure 1 and Figure 2 were reversed in the specification. The objected to parts of the specification have been amended to overcome these objections, and therefore Applicants request that the Examiner withdraw the objection to the Specification.

Claim Rejections under 35 U.S.C. § 102(b)

The Examiner has rejected claims 1-4, 7, 9-26 and 37-41 under 35 U.S.C. § 102(b) as being anticipated by Alhf (U.S. Patent No. 4,151,540). The Examiner has argued that Ahlf discloses much of the instant application, and therefore anticipates the rejected claims. However, upon further analysis, Alhf is inoperative and fails to teach one of ordinary skill in the art the invention disclosed therein, and is therefore unavailable as a reference to anticipate the claims of the current invention.

As shown in the accompanying § 132 declaration by Gary Sroka, one of the Applicants of the present invention, Ahlf is nonenabling and inoperable because it fails to enable one having skill in the art to repeat the invention disclosed in Ahlf. First, Example 1 given in Ahlf is not capable of enabling one of skill in the art to repeat the invention because it does not reveal critical elements of the invention, such as the composition or the source of the manganese-iron phosphate complex used; the pH (acidity) of the manganese-iron phosphate complex; the concentration of the active ingredients of the manganese-iron phosphate complex; the identity of the type of cast iron used; and the hardness of the cast iron used. Further, and most important, there is no disclosure of what is meant by a "highly polished" casting. No quantitative measurement of the surface roughness or useful qualitative information is provided so that one of skill in the art can be certain of when the "highly polished" casting is achieved. This information certainly must be provided to one having skill in the art in order to duplicate Example I without undue experimentation.

Furthermore, Example 2 of Ahlf is also not capable of enabling one of skill in the art to repeat the invention because it does not reveal the aluminum alloy used, the rotational speed or pressure between the two mating aluminum surfaces, or a quantitative or qualitative measurement of the "*smooth, oxide coated surface*". Again this information certainly must be provided to one having skill in the art in order to duplicate Example 2 without undue experimentation.

Finally, if the Ahlf was truly enabling and operative, it would have been a monumental breakthrough for the machining industry. The mechanism of the invention would allow one to polish hardened surfaces at the same speed as the inventor reported for cast iron. Ahlf claims that it would take one minute to precision grind very soft cast iron to the same surface condition as his invention did in 10 seconds. Yet today, 20 years after Ahlf, the finishing industry still relies on mechanical abrasive machining to grind and hone hardened steel alloys that take much longer than 10 seconds.

Unlike Ahlf, the instant invention thoroughly discloses its claimed process, providing all chemicals, means of testing, means of operation, types of metals, and hardness, just to name a few. One of skill in the art will be able to read the instant application and duplicate its

disclosure, and ultimately practice the claims. This is in direct contrast to Ahlf, which, as shown in the accompanying declaration, is not enabling to one of skill in the art.

As shown in the accompanying declaration, the results achieved by Ahlf were more than likely not caused by the mechanism that Ahlf set forth. The process described in Ahlf merely caused a dissolution of the metal, and was therefore not forming a conversion coating as required by the instant claims. Therefore, the instant claims are patentable over Ahlf, and should be therefore allowed.

Given the above, viewed in light of the accompanying declaration, Applicants respectfully request that the Examiner withdraw the 35 U.S.C. § 102(b) rejection of claims 1-4, 7, 9-26 and 37-41, and indicate their allowance in the next paper from the office.

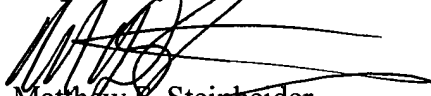
Applicants request for any extension of time that may be deemed necessary to further the prosecution of this application.

Applicants' representative authorizes the Commissioner to charge any additional fees which may be required, or credit any overpayment, to Deposit Account No. 01-2508, referencing Order No. 12350.0010.NPUS00.

In order to facilitate the resolution of any issues or questions presented by this paper, Applicants respectfully request that the Examiner directly contact the undersigned by phone to further the discussion.

In order to promote the prosecution of this application, the Examiner is authorized to contact the undersigned by electronic mail. Please address all e-mail to:
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Respectfully submitted,



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